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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,842	11/12/2003	Paul S. Andry	YOR920010100US2 (8728-493)	6927
7590 08/11/2004			EXAMINER	
Frank Chau, Esq. F. CHAU & ASSOCIATES, LLP 1900 Hempstead Turnpike East Meadow, NY 11554			HON, SOW FUN	
			ART UNIT	PAPER NUMBER
			1772	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,842

Applicant(s)

ANDRY ET AL.

Examiner

Sow-Fun Hon

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 15-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17-19 recites the limitation "method" in claim 15. There is insufficient antecedent basis for this limitation in the claim. It is noted that Applicant cancelled original method claims 1-14 in order to file a divisional responsive to the restriction/election of the method claims in Application No. 09/877,803, now US Patent No. 6,660,341. Claim 15 recites a device. Thus in claims 17-19, the term "method" should be substituted by the term "device", as is proper in claim 16.

3. Claims 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claim 15 recites "the constituent materials including a stoichiometric relationship". A relationship is not a material. However, the constituent materials can have a stoichiometric relationship with each other. Correction is requested.

Claim Rejections - 35 USC § 102

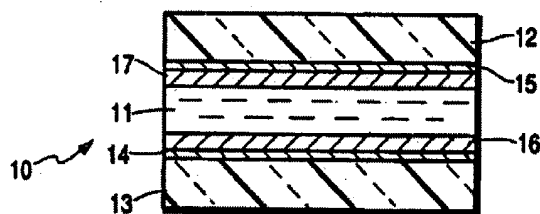
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 15,17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaganowicz (US 5,011,268).

Kaganowicz has a liquid crystal display device, comprising: an alignment layer (abstract) and liquid crystal material 11 in contact with alignment layer 16 (column 3, lines 10-20).

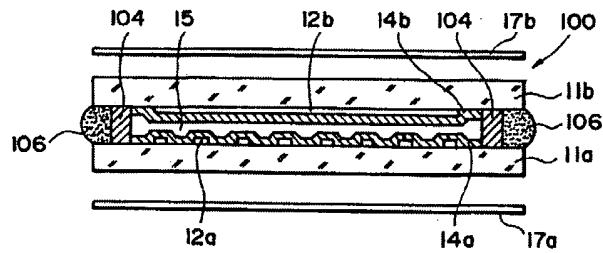


Kaganowicz teaches that the material for the alignment layer includes silicon oxynitride (column 3, lines 60-70) (claim 17). The constituent materials are silicon, oxygen and nitrogen, which have a stoichiometric relationship (claim 15) inherently configured to provide a given pretilt angle, as disclosed in Applicant's specification (page 13, lines 10-20). Silicon oxynitride has a chemical formula of SiO_yN_z .

6. Claims 15-16, 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Onuma et al. (US 5,353,141).

Onuma et al. has a liquid crystal display device (column 1, lines 10-15). Liquid crystal 15 (column 6, lines 45-50) is in contact with alignment layer 14a/b (column 6, lines 55-60).

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Regarding claims 15-16,18, Onuma et al. teaches that silicon carbide (column 7, lines 1-5) (claim 16) is used to form an inorganic alignment film (column 7, lines 15-25). The constituent materials are silicon and carbon, which have a stoichiometric relationship (claim 15) inherently configured to provide a given pretilt angle, as disclosed in Applicant's specification (page 12, lines 20-25). Silicon carbide has a chemical formula of SiC_x and inherently has Pi -electrons (claim 18), as disclosed in Applicant's specification (page 11, lines 5-15).

Regarding claims 15,19, Onuma et al. teaches that silicon oxide (column 7, line 1) is used to form an inorganic alignment film (column 7, lines 15-25). The constituent materials are silicon and oxygen, which have a stoichiometric relationship (claim 15) inherently configured to provide a given pretilt angle, as disclosed in Applicant's specification (page 13, lines 15-20). Silicon oxide has a chemical formula of SiO_x and inherently provides a homeotropic alignment (claim 19), as disclosed in Applicant's specification (page 10, lines 5-10).

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sow-Fun Hon

06/18/04